

**Study to ascertain whether cattle or badgers drive bovine TB in edge areas.
Malcolm Bennett's interview on Radio 4's Farming Today on 09Aug2016.**

CG - Caz Graham, presenter.

MB - Malcolm Bennett, Professor of zoonotic and emerging diseases at Nottingham University.

CG

Farmers and landowners in certain parts of the country are being asked to send badgers which they find dead on the road to central collection points to help with research being carried out by university vet schools to try to establish if TB is common in badgers in so called edge areas, places where TB in cattle isn't currently rife. Malcolm Bennett from the University of Nottingham began by telling me about a previous recent study in Cheshire in 2015.

MB

All we were aiming to do was to find out whether or not there was any evidence of TB in badgers and we were not expecting to find much but in the end we ended up being able to put a bit of a figure on it. Roughly 20% of the badgers we found had TB.

CG

Was that surprising for you?

MB

It was really. I was expecting that if we were to find much TB in badgers then it would be around the southern edge and eastern edge of Cheshire where Cheshire borders onto counties where we know there is quite a bit of TB in cattle. Actually we found TB in badgers in most areas of Cheshire so it suggests that TB is far more widespread in badgers than we expected. In fact 20% is about the same as you would expect to find on a county level if you were to look at somewhere like Somerset or Gloucestershire.

CG

So in the real high risk areas?

MB

Yes.

CG

What do you hope to achieve with this research? Why is it so important?

MB

Generally we have no idea beyond what we found in Cheshire of what role badgers, if any, play in TB on the edge of the epidemic.

CG

So what's it meant to do, this research?

MB

Well I don't think you can bring in methods for control without having some idea of what it is you are trying to control. So there are several scenarios here aren't there? It could be that TB is

spread amongst cattle and occasionally spills over into badgers in which case we will be able to find out better by looking on the edge of the epidemic than right in the centre. So if badgers are receivers of TB rather than givers of TB then that's an important thing to know in terms of control and there's a whole load of things which people are trying to do at the moment which you might not want to spend money on. It could be the other way around. It could be that the main driver is badgers or it could be a mixture of the two. So unless you know, your policy for the control of TB is in an evidence vacuum.

CG

How can you find out from this though if a badger is a giver or a receiver?

MB

You can't directly because the only way you can do that is to follow a whole load of individual cows and badgers over a long period of time. But if for example we find a whole load of counties where there are lots of badger TB but nothing in cows that's kind of interesting isn't it? It would suggest that there's TB in badgers but it isn't being passed onto cows, or maybe it will be passed onto cows in the future. If we find counties where there's lots of TB in cattle but we can't find any TB in badgers then that rather suggests it's cattle that are pushing the infection. If we find areas where there is TB in cattle and badgers but it is different strains, different spoligotypes, of TB then that suggests we have two epidemics going on but the two are not linked. It is not going to be as easy or as clear cut as that but the more counties, badgers and cattle we look at, the more likely it is we are going to untangle it a bit.